



## Model I-7018, I-7018P 8-chan. Isolated Analog Input Module

I-7000 is a family of network data acquisition and control modules. They provide analog to digital, digital to analog, digital input/output, timer/counter and other functions. The modules can be remotely controlled by a set of commands. The I-7018 is a 8-channel analog input module. The I-7018P supports more thermocouple types and enhances the measure range of some types.

### Specifications

#### Analog Input

- Photo-isolation: 3750 Vrms
- Type: mV, V, mA (with external 125 ohms resistor)
- Thermocouple: Type J, K, T, E, R, S, B, N, C (for I-7018)  
Type J, K, T, E, R, S, B, N, C, L, M (for I-7018P)
- Channels: 8 differential or 6 differential and 2 single-ended by jumper select
- Voltage range: +/-15mV, +/-50mV, +/-100mV, +/- 500mV, +/-1V, +/- 2.5V
- Current range: +/- 20mA
- Resolution: 16 bits
- Sampling rate: 10 Samples/Second
- Bandwidth: 15.7 Hz
- Input impedance: 20M ohms
- Accuracy: ±0.1%
- Zero Drift: ± 0.5uV/°C
- Span Drift: 25ppm/°C
- CMR @ 50/60 Hz: 150 dB
- NMR @ 50/60 Hz: 100 dB
- Over voltage protection: 35V (P-P)
- Isolation: 3000VDC

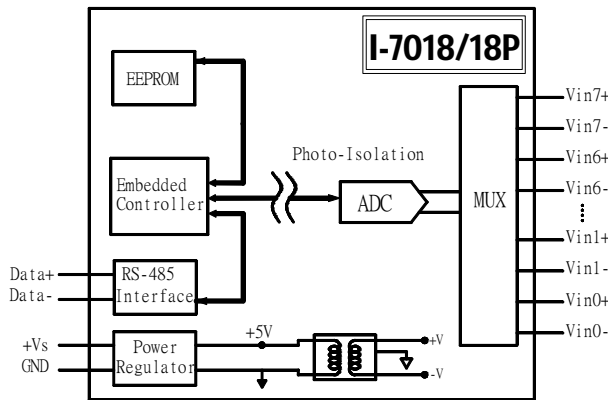
#### Features/Benefits

- 3000VDC isolated analog input
- 24bit sigma-delta ADC to provide excellent accuracy
- Thermocouple direct connect with built-in CJC
- Software calibration
- Dual Watchdog

#### PIN Assignments

Vin5+	1	Vin4-	20
Vin5-		Vin4+	
Vin6+		Vin3-	
Vin6-		Vin3+	
Vin7+		Vin2-	
INIT*/Vin7-		Vin2+	
(Y)DATA+		Vin1-	
(G)DATA-		Vin1+	
(R)+Vs		Vin0-	
(B)GND	10	Vin0+	11

#### Block Diagram



#### Thermocouple type : (C)

Type	Range (C)
J	-210~ +760
K	-270~+1372
T	-270~+400
E	-270~+1000
R	0~+1768
S	0~+1768
B	0~+1820
N	-270~1300
C	0~2320
L	-200~800 (For 7018P only)
M	200~100 (For 7018P only)
L	-200~900 (For 7018P only)





**RS-485 Connector**

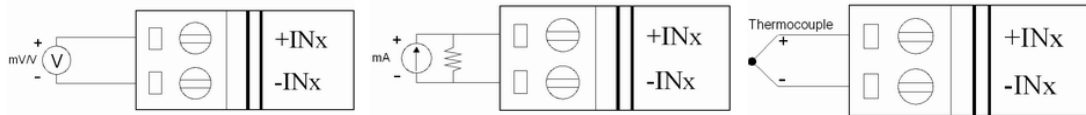
Asynchronous 2-wire half-duplex  
Pluggable terminal block: Pitch 5.08mm

**Baud Rate**

1.2K/2.4K/4.8K/9.6K/19.2K/38.4K/57.6K/115.2K bps

**Wire Connection**

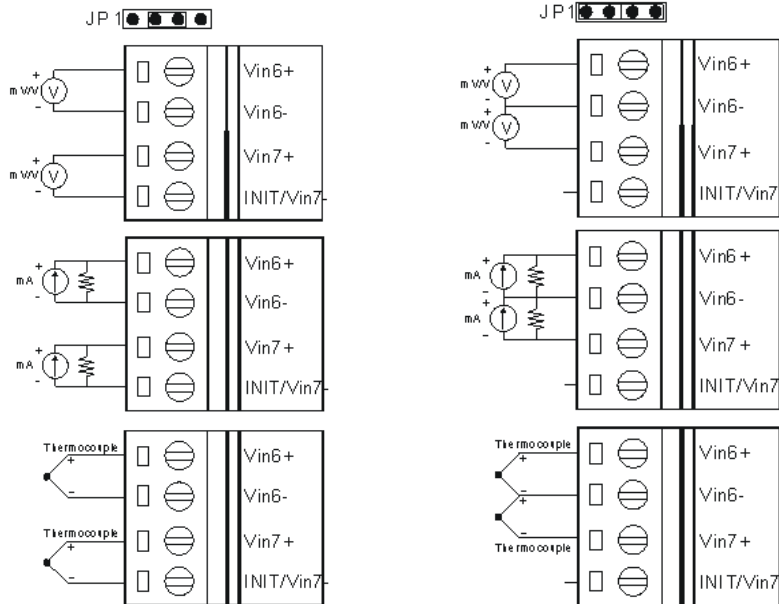
Analog Input Channel 0~5



**Analog Input Channel 6~7**

8 different mode

INIT\* mode





**Power Requirements**

Power input: +10~+30Vdc input

**Power Consumption**

1.0Watt for I-7018 & I-7018P

**Environmental**

Storage temperature: -25°C to 80°C  
Operation temperature: -20°C to 75°C  
Humidity: 5 to 95%, non-condensing

**Dimensions:** 120L x 72W x 33H cm

**Certification:** CE

